

Conversion processes in thermodynamics and chemistry

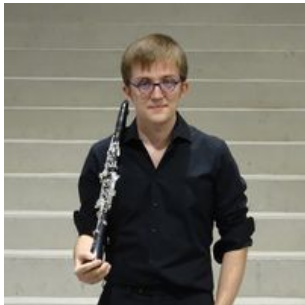
Co-supervised by:
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Me in a nutshell

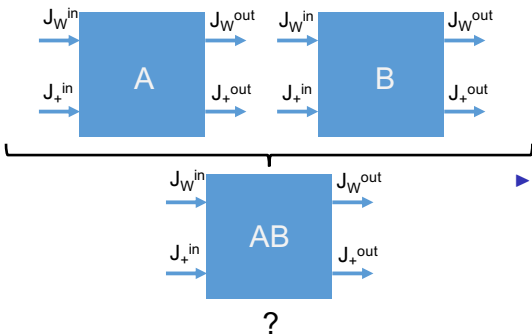


- ▶ 2 years of "Classe préparatoire" at Lycée Clémenceau, Nantes.
- ▶ "Magistère de physique fondamentale" at Université Paris Saclay
- ▶ Master 2 ICFP within the "soft matter and biological systems" track.

- ▶ Master internships :
 1. 1st year : "Generalized continuous Maxwell demon" supervised by Felix Ritort (University of Barcelona)
 2. 2nd year : "Feynman ratchet in mixed boundary conditions" supervised by Christophe Goupil and Gatien Verley

- Effect of mixed boundary conditions on the Feynman ratchet + link between the communities

PhD project : Conversion processes in thermodynamics and chemistry



- Circuits of linear components (described by Onsager matrices) $\Rightarrow$ close to equilibrium theory

$$\begin{pmatrix} J_W \\ J_+ \end{pmatrix} = L \begin{pmatrix} F_W \\ F_+ \end{pmatrix}$$

- Circuits of non linear components (described by non linear conductance matrix) $\Rightarrow$ far from equilibrium theory

$$\begin{pmatrix} J_W \\ J_+ \end{pmatrix} = G(F_W, F_+) \begin{pmatrix} F_W \\ F_+ \end{pmatrix}$$